WHAT IS CLAIMED IS:

1.   A system for feature-based image correction, comprising:

an automatic feature detection unit to detect a feature from an input image according to a correction specification and to generate a feature description for the detected feature; and

a feature-based correction unit to correct the input image based on the feature description and the correction specification and to generate a corrected image.

2.   The system according to claim 1, wherein the correction specification includes a feature type that defines the feature to be detected and corrected and at least one of:

a weight applied to the feature; and

a correction parameter for the feature.

3.   The system according to claim 1, wherein the feature-based correction unit corrects only the detected feature in the input image.

4.   The system according to claim 1, wherein the feature description includes at least one of:

a feature type

a location descriptor;

a shape descriptor; and

statistical properties.

5.   A device, comprising an automatic feature-based image correction mechanism for generating a corrected image based on an input image, the automatic feature-based image correction mechanism automatically detecting a predetermined feature from the input image and correcting the detected feature according to a correction specification.

6.   The device according to claim 5, wherein the correction specification comprises:

a feature type; and

one or more correction parameters that define a correction operation.

7.   The device according to claim 6, wherein the correction operation is at least one of contrast correction and brightness correction.

- 13 -

8.   A method for correcting an image based on one or more image features, comprising:

detecting one or more image features from the image; and

correcting the image according to a correction specification based upon the one or more image features.

9.   The method according to claim 8, further comprising generating a feature description for the one or more image features and correcting the image according to the feature description.

10.   The method according to claim 8, wherein the correction specification comprises:

a feature type; and

one or more correction parameters that define a correction operation.

11.   The method according to claim 10, wherein the correction operation is at least one of contrast correction and brightness correction.

12.   A method for feature-based image correction, comprising:

detecting a feature from an input image according to a correction specification;

generating a feature description for the feature; and

correcting the input image based on the correction specification and the feature description to generate a corrected image.

13.   The method according to claim 12, wherein the feature description includes at least one of:

a location of the feature;

a shape of the feature;

statistical properties of the feature; and

a feature type of the feature.

14.   The method according to claim 12, further comprising setting up the correction specification, the setting up including:

determining a feature type for the feature; and

specifying a correction parameter for the feature, the correction parameter being determined according to the corresponding feature type of the feature.

15. The method according to claim 14, wherein the feature type includes a human face.

16. The method according to claim 14, wherein the correction parameters include at least one of:

operation mode;

operation definition; and

operation parameters.

17. The method according to claim 16, wherein the operation mode includes at least one of:

correcting the entire image; and

correcting the feature.

18. The method according to claim 16, wherein the operation definition includes at least one of brightness correction and contrast correction.

19. The method according to claim 16, wherein the operation parameters include intensity dynamic range.

20. The method according to claim 14, further comprising assigning a weight to the feature and wherein the weight is used to control the operational parameter during correcting the input image.

21. A computer program product including computer program code to cause a computer to perform a method for correcting an image based on one or more image features, the method comprising:

detecting one or more image features from the image; and

correcting the image according to a correction specification based upon the one or more image features.

22.   The computer program product according to claim 21, the method further comprising computer program code to perform generating a feature description for the one or more image features and correcting the image according to the feature description.

23.   The computer program product according to claim 21, wherein the correction specification comprises:

a feature type; and

one or more correction parameters that define a correction operation.

24.   The computer program product according to claim 23, wherein the correction operation is at least one of contrast correction and brightness correction.

25.   A computer program product including computer program code to cause a computer to perform a method for feature-based image correction, the method comprising:

detecting a feature from an input image according to a correction specification;

generating a feature description for the feature; and

correcting the input image based on the correction specification and the feature description to generate a corrected image.

26.   The computer program product according to claim 25, wherein the feature description includes at least one of:

a location of the feature;

a shape of the feature;

statistical properties of the feature; and

a feature type of the feature.

27.   The computer program product according to claim 25, the method further comprising setting up the correction specification, the setting up including:

determining a feature type for the feature; and

specifying a correction parameter for the feature, the correction parameter being determined according to the corresponding feature type of the feature.

28. The computer program product according to claim 27, wherein the correction parameters include at least one of:

operation mode;

operation definition; and

operation parameters.

29. The computer program product according to claim 28, wherein the operation mode includes at least one of:

correcting the entire image; and

correcting the feature.